

### Abstract:

'Amarillo' melon was fresh processed on trapeze shape sections and stored under controlled atmosphere (CA) at 5°C up to 14 days. By mean of a gas mixing system a continuous humidified flow (0.03 L min<sup>-1</sup> and 95% RH) inside 0.750 L glass jars (350 g per jar) was injected. Gas compositions of 4 kPa O<sub>2</sub> + 15 kPa CO<sub>2</sub>, 21 kPa O<sub>2</sub> + 15 kPa CO<sub>2</sub> and 21 kPa O<sub>2</sub> + 0 kPa CO<sub>2</sub> (as control) were applied. Sensorial quality attributes, firmness and microbial counts were monitored. At the end of storage, quality evaluations in control fall down under limit of marketability. However, fresh-cut melon stored for 14 days under CA kept all sensorial parameters within the marketability range without significant differences among treatments. Compared to control, both CA treatments, and particularly 4 kPa O<sub>2</sub> + 15 kPa CO<sub>2</sub>, were effective to avoid softness. At any time off-aroma was detected. At the end of storage, moulds and yeasts counts were lower than 2 CFU/g in CA treatments and about 3 CFU/g in control. Mesophilic and psychrotrophic bacterial counts appeared in about 2.7 and 3.8 CFU/g respectively in CA, while 4.7 and 6.6 CFU/g respectively for control were reached.